3.0 **System Monitoring (SYM)**
3.8 **Manage Monitor Data**

Issues

#	Issue	Resolution
1.	a)- What products are generated by SYM? b)- How long should they be kept within SYM? c)- What products need to be archived? d)- When are they sent to DMG for permanent storage (upon generation or after t time)?	a) See attached table b) See attached table c) See attached table d) See attached table
2.	Does MMD move products to a known directory and then notify DMG that a product is ready for archiving? Or is some other interface approach used?	No, MMD only passes SYM subsystem requests for archiving products to the DMG. The request should include necessary information about the data file including the directory name/path and the file name.
3.	Who is responsible for deleting local data after it has been archived?	The requested subsystem is responsible for the deleting local data after receiving response from DMG concerning the successful archiving the data.
4.	What is the format of data returned from DMG (file, stream, both, etc.)?	At current time only files are considered to be returned from DMG.
5.	a- Is state data stored anywhere in the system for a limited period of time? (SYM_Refhas the need to analyze state data during the resolution of anomalies—may need data from other (non-anomalous) data points.) From where is this data retrieved? Likewise, REF may need to know other state values that may have been updated in during the time that elapsed since the detection of a fault and the beginning of REF analysis / response. b- Is there a local cache within CCS that contains this data?	a) The MMD is maintaining a local cache . Any SYM subsystem can request data from local cache via MMD subsystem. If the requested data is older than that in the local cache then MMD retrieves d the requests data from DMG. b) Not at this point

	c- How big is the cache? d- Does it store n points for each mnemonic or all points for a t interval of time (e.g., one orbit)?	c) TBD d) TBD
6.	Is there a need for standing requests? If so, how are they defined and where are the requests stored (in SYM or in DMG)?	TBD
7.	Are user-generated (in addition to SYM-generated) products ever stored in the archive? If so, where and under what conditions?	TBD
8.	What actions can the user initiate through the GUI?	There is no GUI interface with MMD.
9.	Should MMD provide subscription capability for its local cache to the other SYM subsystems?	TBD

Attached Table for Issue Number 1

System Monitoring (SYM) Subsystem

P3.8 - SYM_ManageMonitorData

List of the Data Stores Generated for Archiving by DMG

Process #	Generating Process Name	Requirement #	Data Store Name	Description	Type / Format	Archived by Time/ Size	Deleted by Source/ DMG	Time Critical	Real Time Mode	Simulation Mode	Auto Playback Mode	User requested Playback Mode	Core LAN	Back Bone LAN
P3.1	SYM_ControlSym	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P3.4	SYM_RecoverFaults	1.1.2.7, 1.1.4.5	SYM_ MiscmpHistLog	All miscompare data from start of time	ASCII	Time	Source	TBD	Yes	Yes	Yes	Yes	N/A	Yes
P3.5	SYM_ PerformAnalysisTrending												N/A	
P3.6	SYM_ManageEvents	6.2.9,10, 11,12,13	Event Log			TBD	Source	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P3.7	SYM_PerformLegacy			ARU and PRT planned real-time command groups	DF224 format			Yes	Yes					Generated ion backbone and used in Core
			vmepm.ascii	Clock Correlation parameters	ASCII	N/A	N/A	Yes	Implemented based on a schedule/ not					Generated ion backbone and used in Core

									arbitary					
				Gyro table loads and RMGA planned real-time command groups	DF224 format			No	Yes					Generated ion backbone and used in Core
				FHST and FGS table loads	DF224 format			No	Implemented based on a schedule/ not arbitary					Generated ion backbone and used in Core

List of Data Stores Retrieved From DMG

Process #	Retrieving Process Name	Require-ment #	Data Store Name	Description	Type/ Format ASCII/ Binary	Retrieved by File/Stream/ Session/ Direct Access	Frequency of Retrieving Data	Time Critical	Real Time Mode	Simulation Mode	Auto Play back Mode	User requested Playback Mode	Core LAN	Back Bone LAN
P3.1	SYM_ControlSym	1.3.1	SYM_CntHICSData	Historical CommandTime Line	Binary	Session,Flat File	Once/replay							
			SYM_CntHistTlmData	Historical mereged telemetry data		Flat File	Once/replay							
			SYM_CntHistEventData	archived log of CCS gnerated events		Flat File	Once/replay							
				ES mnemonics/ methods (PRD)		Dirct Access								
				Derived Parameter Mnemonics / Algorithms		PRD direct access								
			Delta Values (PRD)	PDB for noise filter										
P3.4	SYM_RecoverFaults	1.1.1.7	TLM Info (PRD)	Limits Information		Direct Access	On initialization	Yes	Yes	Yes	Yes	Yes	N/A	
		1.1.1.7	SYM_MiscmpHistLog	All miscompare data from start of time	ASCII	File	On Initialization / On Request						N/A	
		1.1.1.7	SYM_HistEventLog	All events since start of time	ASCII	File	On Request						N/A	
		1.1.1.7	OBC Data Store	DF224 memory dump information	Binary	File	As needed to resolve problem						N/A	
P3.5	SYM_	2.1	PDB Info	Mnemnic		Direct Access			Yes	Yes	Yes	Yes	N/A	Yes

	PerformAnalysisTrending		(PRD)	Info, nits, Limits,...										
		2.2	Telemetry Data	TLM packets, Time Stamp Value, Flags	Binary	One Mnemonic/file			Yes	Yes	Yes	Yes	N/A	Yes
			Analysis Req Info	Analysis Request Definition		Direct Access			Yes	Yes	Yes	Yes	N/A	Yes
P3.6	SYM_Manage Events	6.2.7	Event DB			File	On initialization	Yes	Yes					
P3.7	SYM_Perform Legacy			Telemetry Data	Binary			Yes and No						Yes
				PRD (schfodb, tlmodb,...)	ASCII	File								Yes
				HICS										
				ICS										